

### Introduction – background to the invention

In the last period we are witnesses to a big development in the internet area in general and especially in the “virtual world”. Although this invention does not relate only to the internet, there is no doubt that the internet increases the need for this invention. In a virtual world like the internet’s in which we can travel between the sites, make purchases, buy deferent products – physical or virtual, and different services, it is only natural that we need also to have virtual money. Money bills which we can carry while we serf in the net and use as we wish. It is an object of this invention to give an answer for this need, but the invention is more general, and may be used not only on the internet, but also on the phone, cable net, or in the actual place in which the purchase is made (like stores).

As known, many purchases today are made through the phone, the internet and in different methods. Customers are interested in buying not only in physical stores and shopping centers, but also through different communication means. Today the most abundant way for making purchases through the internet or telephone is with the use of credit cards. The customer submits the credit card number and some more details like the expiration date, the id number, and the selling body passes the charge to the credit card company to authorize the payment and execute it. Actually using this method the customer (owner of the credit card) is forced to submit to the selling body (vendor) some details which if stolen or not used correctly, could cause the customer and/or the credit card company and/or the insurance company of the credit card company a very big financial damage. It is possible that the data which the customer submits would be stolen by a third body which will use it badly and spend the customers money – in this situation it is possible that until the customer realizes this, a lot of time already passes and the financial damage is very big. It also happens that the seller (vendor) which gets the credit card’s details uses the details latter badly in an illegal way or even charging him by mistake for higher amounts then agreed. The risks mentioned here are only few of the risks, and it is important to refer especially to the enormous development in the internet area in which the potential of credit card users is enormous and so is the potential of credit card fraud. The use of credit card through the internet scares many of the credit card company's customers and it is undoubtedly one of the main reasons that the potential of selling through the internet is not exploited. These risks prevent many of the customers that are interested in making purchases through communication means like the internet or the

Inventor’s name: Dan Kabin

telephone from doing so because of the dangers mentioned. Other payment means like bank deposit are usually complicated and expensive and not acceptable in small purchases.

The invention described here offers a solution for this situation with the use of a virtual money card (also referred as "virtual money bill") which will serve the customers in a resembling way to the use of cash money combined with a credit card. The uniqueness and advantages of the virtual money card is that it is limited in its amount of money like every physical money bill, but it does not have to be physical, it is more protected than a regular credit card, and it can be passed from person to person like cash money (which is not possible with a credit card). The virtual card can be used on the internet or the telephone, which is not possible with physical cash money. Further more advantages of this card are that it is possible to perform all the issuing process through the internet or the telephone (or in another acceptable way on the issuing company and the customer), and the issuing process is done immediately or in a very short time. Unlike a regular credit card, after the money in the virtual card is finished, the card becomes worthless and is no longer valid for use. The card holder can also to get information about the card through the internet or the telephone. If the card number and identifying code are stolen, it is clear that the damage is limited to the remainder of the money in the card. Further more if a changing identifying code is used for each purchase, stealing the identifying code after a transaction will be worthless. When the customer orders (buys) another card the card number and/or identifying code are new and the customer doesn't have to worry that a thief might have stolen his previous card number and identifying code. In addition, stealing the card number and identifying code is not a simple task, and it is clear that the motivation of thieves will grow smaller when they know that after hours of hard work and risk all they can benefit is a relatively small amount of money. In addition this method is secured almost completely against illegal use of these cards, because of the fact that the card is limited and because of the unique way it is issued and used.

## Description of the invention

It is a virtual money card with a unique identifier, which will be used by consumers for purchasing through a computer network like the internet, the telephone, or even at the buying place itself. The card does not have to exist physically. The card is limited to an amount of money like a money bill (for example, a card of 100 dollars or 1000 dollars can be issued). The card is identified by a card number, and includes also an identifying code, a changing code (will be explained latter) and may comprise also some more details, like the card holder name and id number. The card is being provided by an issuing company at the request of a person or a company. The person that had bought a card receives from the issuing company a card number and an identifying code. The identifying code can be constant during the card's existence or can change from purchase to purchase or every period of time. The card holder can use the card for purchasing through the internet, the telephone, a cable network, or in the buying place itself.

The card is limited to the amount of money which it was issued for, according to the user's request and thus the maximum risk in case of a fraud is the amount of money exists in the card. After the customer uses all the money in the card, the card turns worthless and the issuing company will not allow anymore purchases with this card. For the customer, the card is like a money bill with a number and an identifying code. The customer (user) buys the card from the issuing body (the issuer can also be a credit card company).

When a card holder decides to use the card for buying a product or a service he submits his card number and the identifying code to the seller (vendor) in a resembling way to how it is done with a regular credit card, but as opposed to the regular method, there is no obligation to demand from the card holder to submit other identifying details in addition to the card number and the identifying code. In a regular transaction made with a regular credit card, the card holder is requested to submit details like address, first name, last name and even id number. Because of the low risk in a transaction made with the virtual money card, the issuing company may authorize transactions made with submitting only the card number, and the identifying code.

After the card holder makes the transaction, the seller, requests the issuing company to authorize the transaction.

If the card number and identifying code are valid and the card contains the amount of money needed, the issuing company will authorize the transaction. A transaction may be authorized by the issuing company only up to the maximum amount of money left in the card, but not above it.

Inventor's name: Dan Kabin

Actually the transaction is made in a similar way to that of a regular credit card transaction, but here there is a limit to an amount of money, the card is virtual and issued immediately, and when the money in the card is finished, the card turns worthless.

The card can also be used for transference of money from a first person to a second person. In order to assure that the card will be passed to the full control of it's new owner (the second person), another code, "changing code", is used.

A first person who wants to transfer money to a second person may do it simply by buying a card and passing it's number, it's changing code, and/or identifying code/codes to a second person to whom he wants to pass the money to. The second person can use the card or ask to cash it in from the issuing company. Only the person who also has the changing code can change the card details like: card number, identifying code, changing code and/or the card owner details. Once the second person changes the card details, the first person is unable to use it anymore and the second person is in full control of the card.

The changing code is not submitted in regular transactions, so there is no fear that a vendor or a thief will use it to steal money, since they have no access to the changing code.

These facts turn the card to a kind of virtual money bill combined with a credit card. The facts that the card is limited with money, and that after the money in it is finished, it turns worthless, cause in fact that stealing the card number and identifying code in the worst case will cause the customer or the insurance company that insures the issuing company, or the issuing company itself damage in the amount of money left in the card. This way, a customer who bought a 50 dollar card for instance, knows that this is the maximum risk for him (the insurance company that insures the issuing company will also be able to estimate damages in case of fraud). It is also clear that the motivation to steal such cards is low since a thief who by chance managed to get the card number and identifying code will only benefit a limited amount of money usually not big. Also if an identifying code which is changing per transaction or per a small period of time will be used, stealing money from these cards will be almost impossible.

Issuing a card for a customer may be done over the phone. The customer calls to the issuing company and requests a card with a certain amount of money. The issuing company will provide the customer with a card number, an identifying code and a changing code.

Issuing a card for a customer may also be done through the internet in a fast way in the issuing company's secure internet site.

The secured internet site of the issuing company may also use the customer to be updated on the card's status and balance. The user can see in the internet the details of his card. Changing the card owner with the help of the "changing code", could also be done through the internet. Carrying out all these operations through a secured internet site will simplify the handling of these cards, reduce their costs and make their use convenient, simple and very fast.

The present invention combines credit card abilities with cash money abilities, creating the virtual money card abilities. A virtual money card can be used on the internet and on the telephone like a credit card, and can change hands like cash money. The virtual money card has the limitation of amount of money which is very much like a money bill on which the amount of money is always written. Combining these abilities makes the virtual money card very useful.

## Description of the drawings

The drawings shown here describe possible stages for operating the model. The paragraph's numbers refer to the numbers that appear on the drawings. It should be noted that this is only one way to perform the model, and there may be other ways as well.

### Stage A - purchasing the card from the issuing company

1. Application – The customer contacts the issuing company, preferably by the telephone or through the internet, and requests the issuing company to issue for himself a card contained with a certain amount of money.
2. issuing the card – the issuing company, issues the card for the customer, by generating a card number, an identifying code or codes and a changing code that the customer can use for changing the card details. The company delivers to the customer his new card number, identifying code or codes and the changing code.

### Stage B - executing a purchase with the card

3. submitting the card details – the customer who decided to make a purchase contacts the seller (vendor) and asks to purchase a certain product or a certain service. The customer submits to the seller (vendor) his card number and the relevant identifying code in order to purchase the product or service.
4. Passing the card details for approval – the seller delivers the card number and identifying code to the issuing company for authorization.
5. Passing an approval or a refusal for the purchase – the issuing company checks the card's details. If the card number exists, the identifying code fits it, and the card contains the amount of money requested, the transaction will be approved, and the issuing company will give an authorization for it, to the seller.
6. Closing the transaction and informing the customer – the seller will notify the customer that the transaction is authorized.

### Stage C - transferring the money to the seller

7. Delivering the money by the issuing company to the seller – at this stage the purchase is already authorized. Now the issuing company will deliver the money to the product's or service's seller. This stage is done according to agreements between the issuing company and the sellers in a

Inventor's name: Dan Kapin

resembling way to how it is done today with regular credit cards. It is reasonable that this stage will be done after all the rest of the stages mentioned here. One possibility is to pay the sellers in a certain fixed date like in the 10'th of each month, and another possibility is to deliver the payment to the seller in a fixed time difference after the approval of every transaction or immediately after it. There may also be other options.

**Stage D** – delivering card from a first person to a second person

8. The first person gives the second person the card number and the changing code (and optionally an identifying code).

9. The second person contacts the issuing company, presents the card number and changing code (and optionally an identifying code) and requests to change the card details (the card number and/or the card identifying code and/or the card changing code, and/or the card holder details). Once the change is done the first person has no access to the card, and the second person is in full control of the card.

## Detailed Description - methods for using the invention

The issuing company which issues the cards can be a credit card company, and in this case it is reasonable that some of the infrastructure and a computerized system already exist. A detailed description of how to use the invention will be disclosed herein:

### Detailing:

The issuing company will hold a computerized system. This system enables issuing cards immediately or in a very short time. This system also keeps track of the cards using a data base, in which every card's details will be saved and updated during the card's existence.

Issuing a card is done by generating a new card number, an identifying code (one or more), and a changing code (or password). The issuing company can allow the customer decide on his changing code, or alternatively generate the code by itself.

The changing code may be used to change the card details and owner latter, if desired.

After generating the new card's details (card number, identifying code, changing code) as described here, the computerized system will insert this data alone with other details (such as the card holder's name and id) to a reservoir (data base). The exact structure of the data base can change according to the specific adjustments or embodiments that the issuing company decides on. An example for one preferred embodiment uses a data base comprising the following fields (details) for a card:

1. Card number
2. A constant identifying code or a list of identifying codes (one per each transaction or one per each time period)
3. "changing code" or password – as described in this invention.
4. The customer's name and details like address, phone number, id number.
5. The amount of money contained in the card when it was issued.
6. The amount of money present in the card.
7. Issuing date.
8. Expiry date (if exists).

The issuing company will charge the customer money for the card by charging his bank account or by charging his credit card or in any way acceptable on both sides. The issuing company can charge the customer in advance for the whole amount of money contained in the card, in



which case the issuing company does not have to save the customer's details and the customer's bank account details in the data base. Alternatively, the issuing company may decide to charge the customer only after he makes purchases with the card, in which case the issuing company will also save information of his bank account, or his credit card number so that it can charge him when he makes purchases with the card.

After generating the new card's details, the issuing company will deliver the customer his new card's details: his card number, the identifying code (or identifying codes), and the changing code or password (if issued).

When a customer decides to make a purchase he has to submit the card number and the relevant identifying code to the seller. The seller will deliver this data to the issuing company which will check in its data base if a card with this number and identifying code exist. If this card number and identifying code exist and valid, the company will check the balance in the card, and if the balance is enough for the transaction, the transaction will be authorized as it is done today with a regular credit card. The amount of money left in the card will be updated according to the purchase's cost, and the purchase's details and amount of money left in the card will be saved in the database of the issuing company.

The whole issuing process or part of it can be done through the internet, for example by a secured internet site which the issuing company will hold. This internet site will enable the customers to purchase virtual cards in a fast way. A customer which will enter the site will be able to fill a request for a virtual money card which will contain the amount of money he wants. The customer might also be requested to fill some more details according to the issuing company's demands and instructions. The customer will be able to pay for the card for example by credit card, by check, by bank deposit or in another way acceptable on both himself and the issuing company. After paying for the card the customer will receive through his email or through the internet site or in regular mail, or in modem fax, or in any another way acceptable on both sides, the new card's details, and the issuing company will update the computerized system about the new card details.

In addition, a card owner can enter the issuing company's site and inquire for details and information like the balance of the card he owns. Changing the details with the help of the "changing code" can also be done through the internet site, by filing an appropriate request. These inquiries and changes can be done for example by entering the card number and/or the identifying code and/or the changing code in the

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issuing company's site and entering a request for the card details. In order to improve the security of the card issuing, the issuing company can send the customer the card number separated from the other code or codes, and it can also send them in different ways, for example: the card number will be sent through the internet site and the identifying code/codes will be sent by fax or E-mail.

It is also possible that a virtual card owner will ask for his money back from the issuing company because of different reasons like: there is only a small amount of money left in the card, he/she is not interested in making anymore purchases or any other reason. In this case the issuing company will deliver the money back to the customer in any acceptable way on both sides like a check, a bank transfer or any other way. The issuing company will also update the balance of the card to 0 and will register the card in the data base as a closed card.

Although the term "card number" is used in this invention very often, it would be possible that a "card number" will include also other characters like letters and other signs. The identifying code and changing code may also include different characters such as numbers, letters, and other signs.